

Application Serial No: 11/040,297
In reply to Office Action of 24 June 2005

Attorney Docket No. 83303

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) An electrostrictive terpolymer
~~comprising~~ consisting of:

vinylidene fluoride;

trifluoroethylene; and

at least one monomer, wherein said at least one monomer is
an ethylene-based monomer selected from the group
consisting of 1-chloro-2-flouroethylene and 1-chloro-
1-flouroethylene and said at least one monomer has at
least one halogen atom side group [[,]] wherein said
halogen atom side group is chlorine and wherein said
at least one monomer favors *gauche*-type linkage along
a backbone of a polymer chain of said terpolymer.

2. (original) The electrostrictive terpolymer according to

Application Serial No: 11/040,297
In reply to Office Action of 24 June 2005

Attorney Docket No. 83303

claim 1 wherein said halogen atom side group is of a size sufficient to move said polymer chain away from an adjacent polymer chain without inhibiting the formation of polymer crystallites.

3. (cancelled)

4. (cancelled)

5. (currently amended) The electrostrictive terpolymer according to claim [[4]]1 wherein said terpolymer comprises from about 65 mole % to about 71 mole % vinylidene fluoride, from about 26 mole % to about 33 mole % trifluoroethylene and from about 1 mole % to about 6 mole % chlorofluoroethylene.

6. (original) The electrostrictive terpolymer according to claim 1 wherein said terpolymer comprises from about 65 mole % to about 71 mole % vinylidene fluoride, from about 26 mole % to about 33 mole % trifluoroethylene and from about 1 mole % to about 6 mole % said at least one monomer.

7. (currently amended) An electrostrictive terpolymer ~~comprising~~ consisting of:

Application Serial No: 11/040,297
In reply to Office Action of 24 June 2005

Attorney Docket No. 83303

from about .65 mole % to about 71 mole % vinylidene
fluoride;

from about 26 mole % to about 33 mole %
trifluoroethylene; and

from about 1 mole % to about 6 mole % of a chloro-monomer
which favors *gauche*-type linkage, wherein said chloro-
monomer is selected from the group consisting of 1-
chloro-2-fluoroethylene and 1-chloro-1-fluoroethylene.

8. (currently amended) A method of synthesizing an
electrostrictive

terpolymer film comprising steps of:

combining vinylidene fluoride, trifluoroethylene, and at
least one monomer to form a terpolymer, wherein said
at least one monomer is an ethylene-based monomer
selected from the group consisting of 1-chloro-2-
flouroethlylene and 1-chloro-1-flouroethlylene and
said at least one monomer has at least one halogen
atom side group [[,]] wherein said halogen atom side
group is chlorine and wherein said at least one
monomer favors *gauche*-type linkage along a backbone of
a polymer chain of said terpolymer;

Application Serial No: 11/040,297
In reply to Office Action of 24 June 2005

Attorney Docket No. 83303

forming said terpolymer into a thin film by a process
selected from the group consisting of solvent casting
and extrusion; and

annealing said terpolymer.

9. (original) The method of synthesizing an electrostrictive terpolymer film according to claim 8 wherein said halogen atom side group is of a size sufficient to move said polymer chain away from an adjacent polymer chain without inhibiting the formation of polymer crystallites.

10. (cancelled)

11. (cancelled)

12. (original) The method of synthesizing an electrostrictive terpolymer film according to claim 8 wherein said terpolymer comprises from about 65 mole % to about 71 mole % vinylidene fluoride, from about 26 mole % to about 33 mole % trifluoroethylene and from about 1 mole % to about 6 mole % said at least one monomer.

Application Serial No: 11/040,297
In reply to Office Action of 24 June 2005

Attorney Docket No. 83303

13. (currently amended) A method of synthesizing an electrostrictive terpolymer film ~~comprising~~ consisting of the steps of:

combining from about 65 mole % to about 71 mole % vinylidene fluoride, from about 26 mole % to about 33 mole % trifluoroethylene and from about 1 mole % to about 6 mole % chlorofluoroethylene to form a terpolymer;

forming said terpolymer into a thin film by a process selected from the group consisting of solvent casting and extrusion; and

annealing said terpolymer.